

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims.

LISTING OF CLAIMS:

Claims 1-39. Cancelled.

Claim 40. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment, which recognizes a 150 kDA *T. equigenitalis* protein.

Claim 41. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognize *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

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Claim 42 (Previously Presented) An isolated monoclonal antibody obtained by a process comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized against an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain, cloning and selecting according to the capacity of their culture supernatant to recognize a 150 kDA *T. equigenitalis* protein, recovering the required monoclonal antibody, and optionally purifying said monoclonal antibody.

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Claim 43 (Previously Presented) A method of obtaining a monoclonal antibody according to claim 40, comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a strain, screening hybridomas whose culture supernatants exhibit a positive reaction with a 150 kDA *T. equigenitalis* protein or a fragment thereof, selecting by cloning the hybridomas with respect to their reactivity, in relation to *T. equigenitalis*, recovering the monoclonal antibody, and optionally purifying said monoclonal antibody.

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Claim 44 (Previously Presented) A strain of hybridoma, which secretes a monoclonal antibody according to claim 40.

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Claim 45. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or F(ab')² fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen antibody type~~, wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

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Claim 46. (Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:
(a) bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
(b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen antibody type~~

in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,
wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

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Claim 47. *11*
(Previously Presented) The method according to claim 45, further
comprising blocking the non antigen-antibody reactions.

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Claim 48. (Previously Presented) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
a monoclonal antibody or fragment according to claim 40,
a reagent for detecting the intended immunologic reaction,
optionally, a reagent for blocking the non antigen-antibody
reactions, and
instructions for use.

Claim 49. Cancelled.

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Claim 50. *16*
(Previously Presented) A kit according to claim 48, wherein said
reagent for carrying out the intended immunologic reaction is selected
from the group consisting of markers and buffers.

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Claim 51. 16
(Previously Presented) A kit according to claim 48, wherein a reagent
for blocking the non antigenic-antibody reaction is included and said
reagent is mouse serum.

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Claim 52. 12
(Previously Presented) The method according to claim 47, wherein the
non antigen-antibody reaction is blocked by saturation of the specimen
obtained by means of a serum from which *anti-T. equigenitalis*
antibodies have been removed.

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Claim 53. 14
(Previously Presented) The method according to claim 46, further
comprising blocking the non antigen-antibody reactions.

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Claim 54. 14
(Previously Presented) An isolated monoclonal antibody or its Fv, Fab
or F(ab")² fragment according to claim 40, in combination with
antibodies or Fv, Fab or F(ab')² fragments thereof which recognize
T. equigenitalis proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

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Claim 55. 14
(Previously Presented) An isolated monoclonal antibody or its Fv, Fab
or F(ab")² fragment according to claim 40, in combination with an
antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120
kDA *T. equigenitalis* protein.

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Claim 56. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

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Claim 57. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

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Claim 58. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

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Claim 59. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with antibodies or Fv, Fab or F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

²⁴
Claim 60. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120 kDa *T. equigenitalis* protein.

²⁵
Claim 61. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDa *T. equigenitalis* protein.

²⁶
Claim 62. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDa *T. equigenitalis* protein.

²⁷
Claim 63. (Previously Presented) A strain of hybridoma, which secretes the ²³ monoclonal antibody according to claim 42.

⁸
Claim 64. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective

quantity of the monoclonal antibodies or Fv, Fab or
F(ab')² fragments thereof according to claim 41, under
conditions permitting a reaction of the antigen-antibody
type, and

detecting any antigen/antibody type reaction product formed
product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

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Claim 65. (Currently Amended) A method of identification of a bacterium of the
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a
culture comprising:

bringing the specimen or the culture to be analyzed, which may
contain *T. equigenitalis*, into contact with an effective
quantity of the monoclonal antibody or Fv, Fab or F(ab')²
23
fragment thereof according to claim 42, under conditions
permitting a reaction of the antigen-antibody type, and
detecting any antigen/antibody type reaction product formed
product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

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Claim 66. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or *F(ab')²* fragments thereof according to claim 54, under *19* conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed
product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

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Claim 67. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or *F(ab')²* fragments thereof according to claim 58, under *31* conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed
product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

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Claim 68. (Currently Amended) A method of identification of a bacterium of the
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a
culture comprising:

bringing the specimen or the culture to be analyzed, which may
contain *T. equigenitalis*, into contact with an effective
quantity of the monoclonal antibodies or Fv, Fab or
F(ab')² fragments thereof according to claim *59*, under
conditions permitting a reaction of the antigen-antibody
type, and

detecting any antigen/antibody type reaction product formed
product formed in a reaction of the antigen-antibody type,
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

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Claim 69. (Currently Amended) A method of diagnosis of an infection by
Taylorella equigenitalis (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof
according to claim *7*, into contact with a biological

sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen-antibody type~~ in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

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Claim *20.*

(Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof *23* according to claim *42*, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen-antibody type~~ in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

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Claim 71 (Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof *19* according to claim 54, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen-antibody type~~ in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

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Claim 72 (Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof *31* according to claim 58, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

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Claim ~~73~~ (Currently Amended) A method of diagnosis of an infection by
Taylorella equigenitalis (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof
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according to claim ~~50~~ into contact with a biological
sample, wherein said sample may contain *T. equigenitalis*
antigen, under conditions permitting an antigen-antibody
reaction, and

(b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

¹⁰
Claim 74. (Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment antibodies or fragments
according to claim 41,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

³⁰
Claim 75. (Previously Presented) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
a monoclonal antibody or fragment according to claim 42,
²³
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

²²
Claim 76. (Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment antibodies or fragments
according to claim 54,
¹⁹
reagents for detecting the intended immunologic reaction,

optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

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Claim 77. (Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment antibodies or fragments
according to claim 58,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

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Claim 78. (Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment antibodies or fragments
according to claim 59,
reagents, for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

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Claims 79-83 Cancelled.